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Testimony of
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Before
Committee on Commerce, Science and Transportation
U.S. Senate
on
The Broadband Internet Regulatory
Relief Act of 2000
July 26, 2000

Mr. Chairman: I am pleased to appear before the Committee to present the views of the Manufacturers Alliance/MAPI Inc. (the Alliance) on S. 2902, the Broadband Internet Regulatory Relief Act of 2000. The Alliance represents over 400 companies across a broad spectrum of industries, including aerospace, automotive, electronics, defense, machine tools, pharmaceuticals, telecommunications, chemicals, oil and gas, and many others. Since our founding in 1933, we have been a voice for industry supporting policies which promote capital investment, productivity enhancement, innovation, free trade, and economic growth in our free enterprise system. We support Senator Brownback's legislation as a means to advance the economic goals we have promoted for over 65 years.

The Digital Economy

Before discussing some of the specific benefits of this legislation, I would like to discuss in the general context why more rapid broadband deployment, the goal of Senator Brownback's bill, is important to manufacturers and related service industries. The American economy—including the manufacturing sector—is enjoying one of the most sustained periods of robust growth in its history and has regained the international competitive advantage in manufacturing many thought was lost only a decade ago. One reason for this strong performance is the advent of what is being called variously the Digital Economy, the Information Economy, or the Internet Economy. Whatever is the proper name, the phenomenon of ever more connected and powerful information processing is at its core. It is both the explosive growth of connected computing and its system-wide efficiency effects which are contributing powerfully to the low-inflation, above-trend line growth we have experienced from at least 1995 through this year.

The U.S. Department of Commerce estimates that one-third of U.S. economic growth is attributable to the sustained expansion of the information technology sector.[1] Of more lasting significance are the system-wide efficiencies gained from the application of connected computing in all sectors of the economy. The

[1] U.S. Department of Commerce: *Digital Economy 2000*, Washington, DC, June 2000, p. vi.

Internet and its predecessors already have revolutionized the financial sector and now are increasingly changing the manufacturing and retail sectors as well. The Alliance recently held a conference on business-to-business (B2B) electronic commerce attended by nearly 150 companies. We learned that B2B sales are expected to grow from today's $400 billion to nearly $2.7 trillion, or 17 percent of total sales, by the year 2004. About 56 percent of U.S. companies are conducting B2B sales over the Internet now, and over 90 percent anticipate doing so by 2002.[2] The advent of Internet-based communications and transactions also is adding to the efficiencies of manufacturing in numerous ways. Some of the more important Internet-enabled processes we discussed at our conference and now being deployed by manufacturers are:

- Coordinated product design between companies and across different locations,
- Improved human resource functions,
- Better management of inventories and supply chains,
- Remote training,
- Using auctions in both purchasing and selling,
- Improved customer services, and
- More efficient project administration and management.

The application of these new information technology and Internet-related processes in the manufacturing sector is one reason that this sector has performed well in an increasingly competitive, globalized environment. Productivity in the manufacturing sector has grown by an average of 6.1 percent for the three years ending in March 2000, which is substantially higher than any three-year period since 1950. Such sustained productivity growth, in turn, has helped keep the lid on inflation, an especially difficult achievement at this late stage in the business cycle given the low unemployment rate. Although one cannot attribute all gains in productivity to one factor—since other technological breakthroughs, management improvements, more efficient financing tools, etc., also are contributing factors—data from a recent study by the Federal Reserve Board indicate that up to 40 percent of the recent upswing in trend productivity growth is accounted for by increases in the stock of information technology.[3] A recent study by Goldman Sachs estimates that total GDP growth can be enhanced by .2 percent per year from the spread of B2B electronic commerce alone.[4] Anything that contributes to economic growth, higher productivity, and lower inflation is good for the bottom line of manufacturers as well as consumers.

The Role of Broadband Communications

Broadband telecommunications is playing an increasingly pivotal role in the advance of the digital economy. As both manufacturers and retailers move increasingly toward electronic commerce and the use of the Internet as a management tool, the need for ubiquitous high-speed connections grows more crucial. High-speed connections are needed not only to play video games and download movies but to do video conferencing, exchange design data on the thousands of parts that go into an automobile or an airliner, conduct auctions for raw materials, coordinate just-in-time delivery systems, facilitate distance learning, and promote telecommuting. If we are to achieve the projected gains from B2B e-commerce and, if over 90 percent of businesses are to be in the B2B environment in the next few years, we will require high-speed connections not only in the urban environments where high-speed connections are becoming more available, but also in more remote areas where many of America's factories are now located and where numerous American telecommuters would like to be. While billions of dollars have been invested in broadband networks since passage of the Telecommunications Act of 1996, fewer than 3 million users are now hooked

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[2] Bruce Temkin, Forrester Research: "What Does the Future Hold for Business-to-Business E-Commerce/E-Business," presentation to *Business-to-Business E-Commerce—A Look at Manufacturers' Best Practices for Thriving in the Digital Economy*, Arlington, VA, June 8, 2000. See also, *The Internet Economy Indicators*, www.internetindicators.com/facts.html.

[3] See Jeremy Leonard, *How New is the "New Economy"? The Role of Information Technology Investment in Recent U.S. Economic Performance*, Economic Report 498, Manufacturers Alliance/MAPI, July 2000.

[4] Cited in: "B2B E-Commerce About to Explode, Affecting the Economy in Every Way," *Daily Report for Executives*, Bureau of National Affairs, Washington, DC, July 19, 2000.

up to them.[5] Powering the digital economy and maintaining the pace of productivity enhancement responsible for the robust growth and global competitiveness of our industry will require more rapid deployment of broadband networks in both urban and rural environments.

The Need for Regulatory Relief

There appear to be few technical and economic barriers to the deployment of broadband networks. In fact, there are numerous technologies which are now being tested and deployed for current use, and there is reasonable potential to have a competitive market for broadband services. Many of the barriers to rapid, near-term deployment of broadband services reside in the current regulation of the telecommunications sector. DSL (digital subscriber line) service across existing telephone lines and cable-based high-speed service have the most potential for near-term growth, but several satellite-based networks are being tested, as well as fixed terrestrial wireless systems. Fiber-optic cable directly to end users will be a viable option for some urban or high-capacity users. The just-announced entry of Enron subsidiary, Enron Broadband Services, and Blockbuster into the business of delivering movies on demand via fiber-optic cable also may portend wider use of this delivery mechanism to homes and rural areas. In the next few years, terrestrial wireless systems will roll out higher speed (up to 2.5 megabits per second or more) services which may be as ubiquitous as copper wire, cable, and satellite networks. Electric power distribution companies also are experimenting with the use of their systems for high-speed data offerings.

Around the beginning of this year, there were only about one-half million DSL customers, although this sector is growing rapidly. Over 1.1 million cable broadband subscriptions were in place at the same time, almost all to homes. At the beginning of this year, only about 40 percent of all households and 57 percent of small businesses had DSL service available to them.[6] Fiber deployment at this point is minimal, although several regional Bells and other providers are experimenting with this technology. The number of wireless cable (or fixed wireless) and satellite subscribers is in the tens of thousands, and terrestrial wireless broadband offerings are not yet available. Urban areas are clearly better served than rural areas. In sum, the reality of broadband connectivity is lagging far behind its promise.

While all of these technologies are currently available, they require substantial amounts of capital to develop, test, and market. About $10 billion alone is needed to upgrade copper wire connections for DSL service.[7] In the absence of regulatory parity (or deregulatory parity), some systems are more likely to advance quicker than others. Unfortunately, as the subscriber data show, in the current environment in which some services are subject to regulation or to potential regulation, needed investments to develop the service are discouraged or made prohibitively risky. It is our view that steps to remove regulatory asymmetries and indeed to move to a less-regulated environment in high-speed services are required to promote more rapid deployment of these services. Because competition already has emerged in this market sector—with choices between copper wire, cable, satellite, and terrestrial fixed wireless now available in some places—we should move as rapidly as possible to reduce regulation in high-speed services.

Although cable operators are potentially restrained in upgrading their systems for high-speed data offerings by the threat of regulation of access at the local and state levels, recent court decisions and the restraint shown by the FCC thus far appear to create reasonable certainty that the threat will not become a reality. As a result, cable companies are investing billions to upgrade their systems to allow advanced data and voice services, although most are targeted at residential customers. Most other broadband technologies, such as the various forms of wireless services, face few actual or potential regulatory restraints on investment.

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[5] Data on high-speed connections are taken from: U.S. Department of Commerce and U.S. Department of Agriculture, *Advanced Telecommunications in Rural America: The Challenge of Bringing Broadband Service to All Americas*, Washington, DC, April 2000.

[6] See Sanford C. Bernstein & Co., Inc. and McKinsey & Co., Inc., *Broadband*, New York, January 2000, pp. 27-29.

[7] *Ibid*., p. 8.

Incumbent local operating companies (ILECs), however, face very real impediments to their investments in high-speed data services. The current requirements under section 251 of the Communications Act for interconnection, unbundling, and resale of network elements used for advanced data services not only place the ILECs at a competitive disadvantage, but constitute a real disincentive to the types of investments required to upgrade their systems to offer broadband services. It is significant to note that 22 percent of DSL subscribers are using the services of competitive local exchange carriers (CLECs).[8] The ILECs clearly lagged behind in building out their DSL networks partly because the benefits of any investment would have to be shared with competitors. The economist Alfred Kahn made the case for a lighter hand of regulation in a recent filing in which he stated quite bluntly that the section 251 requirements discourage investment. Kahn wrote: "If rivals can share use of whatever network facilities they ask for at prices explicitly intended to recover only the minimum cost of employing the most modern technology, it cannot but have a fatally discouraging effect on their own initiative and innovation efforts."[9] This analysis was reinforced in a 1999 letter to the FCC signed by the heads of 13 high-technology firms such as Compaq, Gateway, Intel, Cisco, IBM, Novell, and Kleiner Perkins. The signers argued: "It is a simple but undeniable reality that new and unnecessary regulation will diminish the willingness of capital markets to finance the construction of new broadband networks."[10]

The experience of cellular telephony is instructive in this regard. After hesitating to grant operating licenses for over a decade, the FCC originally deemed that each market would have just two competitors, and one of these would be the wireline carrier. We now know that the technology is much more robust and competitive than that. In the case of broadband, I believe it would be a mistake to try to "manage" competition or to "handicap" competitors. The important thing is to get obsolete regulatory barriers out of the way and let technologies and markets develop, subject to the rigorous discipline of consumer choice.

Senator Brownback's bill goes a long way toward removing the current disincentive for investment by the ILECs in broadband infrastructure and services. It is especially the relief from unbundling and resale requirements and from price regulations which are most significant for promoting investment. The Manufacturers Alliance supports such efforts to achieve regulatory parity and gradually lessen the regulation of the fast-moving and economically crucial high-speed telecommunications sector.[11] There are, of course, other measures Congress (and the FCC) could consider to stimulate an even faster transition to a ubiquitous broadband environment. These would include making more spectrum available for high-speed, wireless data services and creating transferable property rights for spectrum holders. Congress also could consider allowing more competition in the Internet backbone market. Such efforts to incentivize more investment in broadband and stimulate broader competition cannot fail to result in quicker introduction of high-speed services at lower prices. In turn, this would lower input costs to manufacturers and facilitate the more rapid deployment of Internet-based sales, marketing, management, and supply strategies by U.S. firms in urban and rural America alike. Senator Brownback's bill is an excellent first step toward this goal.

I want to close by thanking Senator Brownback for holding this timely hearing and providing us with an opportunity to comment on this important legislation.

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[8] *Advanced Telecommunications in Rural America*, *op. cit.*, p. 22.

[9] Quoted in Adam Thierer, "Broadband Telecommunications in the 21st Century: Five Principles for Reform," *Heritage Foundation Backgrounder*, No. 1317, Washington, DC, September 1999, p. 19.

[10] See Jeffrey Eisenach, "Computer Industry Flexes Its Muscle," www.intellectualcapital.com, July 28, 1999.

[11] Thomas J. Duesterberg, *Broadband Access: Do We Need a Regulatory Solution?*, BL-9, Manufacturers Alliance/MAPI, February 2000.